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THE
NATURE
James OF Stenhouse
BREAD,

Honestly and Dishonestly Made;

AND

Its EFFECTS as Prepared at present

ON

UNHEALTHY and HEALTHY Persons.

WITH

A sure Way of discovering ALUM, and
other MIXTURES in BREAD.

AND

An EASY METHOD of MAKING
it in PRIVATE FAMILIES.

To which are added

Some Thoughts addressed to the LEGISLATURE
For the RELIEF of the POOR.

By JAMES MANNING, M. D.

L O N D O N:

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1757.



DEDICATION TO THE SOCIETY

For the ENCOURAGEMENT of
ARTS and MANUFACTURES.

Gentlemen,

ACCCEPT the Applause of a Person
disinterested and unknown to you : who
joining these Labours, in his lesser Sphere,
to those by which you encourage the present
Generation, and give Hopes to the succeeding,
can wish no greater Satisfaction than
your Approbation. He Wishes that, because
the Expectation of good, from his Endeavours,
depends on your Support ; which if
you approve the Purpose, you will not deny.

If

THE DEDICATION.

*If peculiar Honours have been given by
wise Nations to those who sav'd one Citizen,
what do the British People owe to you?—that
which they pay: an universal Gratitude: a
Distinction superior to all other Honours.*

*For their Sake, that you may long pursue
your present Course, is my most sincere Wish;
and for yours, that Lord FOLKSTONE may
continue to preside.*

I am,

GENTLEMEN,

Your respectful Servant,

The EDITOR.





N A T U R E

O F

B R E A D, &c.

Hal
 IN many Years Practise of my
 Profession, I have never seen such
 Havock among Persons of delicate
 Constitutions, such Aggravation of
 Complaints in the Unhealthy, or so many
 Disorders among the Robust and Strong
 without obvious Causes, as within the last
 seven Months. In grown Persons chronic
 Diseases have been exasperated, and acute
 brought on with the most violent Symptoms;
 often in a strange and altogether extraordinary
 Way; and sudden Death has snatch'd
 off the Healthy after Meals, in a Manner
Hal new to the Physician, and terrible to the Sur-
 vivors,

vivors. Infants have pin'd through tedious Illnesses: and Complaints, at other times as easy to remove, as they are hasty to come on in their tender Frames, appear now, obstinate, and unconquerable.

Cap: As it is usual in the Profession to keep a Diary of Cases which fall under our Care, I have with a degree of Terror not known to me before, looked over those of the Period just named; and as the Cause has not appear'd in the Air or Seasons, or any other usual Occasion, I have consider'd all attendant Circumstances.

THE Condition of *Bread* at this time is such as may alarm the least attentive; and it has been growing to this unprecedented Adulteration during the Months now mentioned. These Exaggerations of Symptoms, more frequent Illnesses, and sudden Deaths, have kept time with the Adulteration of the *Bread*, and have encreased with it; all the Symptoms have corresponded with the Nature of the *Bread*; and in sudden Deaths, the Catastrophe has come on so immediately upon eating a large Quantity of it. That it is strange, the Cause has not been seen as universally, as it has been strongly marked in certain Instances. This Cause appears; and there can be assign'd no other. It is natural that *Bread*,
sophisticated

sophisticated with such Ingredients, as are known now to be used in it, should produce these Symptoms; and as there cannot be any other produced, it is just to lay it to the Charge of this. Experience confirms the Opinion establish'd thus on Reason; and adulterated *Bread* is justly to be consider'd as the latent Destroyer.

FOR this Reason I have endeavour'd to explain to the Publick the Nature of that universal Food: to shew what *Bread* is, and what it should be; and its Effects when genuine, and when sophisticated. *adulterated*

THE Difference between *Bread* made as it should be, and such as is now sold, is obvious to the Senses; and a few Rules will serve to shew when it is more, and when less adulterated. Pure *Bread* is of a clean Colour and mellow Texture, the Crust is brown, the Crumb soft when moderately new, the Smell is fresh, pleasant, and wholesome, and the Taste sweet: On the contrary, the Crumb of adulterated *Bread* is harsh and the Crust pale, the Smell is raw and disagreeable, and the Taste has nothing of that Sweetness: neither has the Crumb at any time the due Consistence: For it is made up of Ingredients which will not mix with the Yeast and Water in the manner that Flour does.

THE

THE Paleness of the Crust is one great Article, and it depends upon this plain Cause; Flour when burnt becomes brown; but the Ingredients added to Bread by those who adulterate it, remain white in the Fire. Whiting, Lime, Allum, and Ashes of Bones are alike in this Respect; they will continue white when burnt: And therefore the more there is of them in the Bread, the paler will be the Crust. There cannot be a more obvious way of discovering the Fraud, than by comparing the Crust of an honestly made Loaf, with that of one of the others.

WE shall lay down in the succeeding Pages more certain Methods of detecting Frauds; But these are obvious to the Senses; and if there were no other, they are sufficient.

EVERY one knows what Bread properly should be. It is made of Flour ground from sound Corn, with a little Yeast for Fermentation, a very little Salt for Relish, and as much Water as will bring it to a Paste; this, baked to a due Hardness, is Bread; the most wholesome of all Foods.

THE Adulterations of it have begun early; but they are of late encreased to a degree that is altogether intolerable; and, if not prevented, will entail Diseases and Misery on ourselves
and

and our Descendants. Two Sets of Men concur in them, Millers and Bakers; the former add all they can to encrease the Quantity of the Flower, and improve its Colour; and the latter receiving it from them in this Condition, charge it higher with new Mixtures.

THE Adulteration of Flour began among the Mealmen, and I have Charity enough for Mankind to suppose it was first owing to Accident. Corn which has lain damp on the Ground through unfavourable Seasons, or bad Management; or such as has got Moisture in the Granary will be damaged; it will shoot for Growth, or the Flour ground from it will loose its true Texture and Sweetness, and grow loose and musty.

WHEN the Miller first bought such Corn, he cured it by his Mixtures; afterwards he would buy such purposely because it was cheaper, and he had found how to make it saleable: From this in the present Age, wherein all regard to Integrity is lost, and the exorbitant Desire of Gain is the universal Principle, the dishonest Practice has arrived at its full Degree. Flour is adulterated by the Miller, because the Ingredients are cheap, and add to the Quantity; and again by the Baker, because he finds the same tempting Profit.

If the Miller could be pardon'd, who used harmless Ingredients to recover Flour which he bought as good, but found otherwise ; or even if the Baker, in Time of Scarcity, added, to encrease the Quantity, the Meal of innocent Vegetables, they might be in some Degree excused : but the Crime at present admits of no Apology or Mitigation. There is such an abundant Quantity of Corn in the Kingdom, that an honest Man must wonder where it is lodged, or how the Price is kept up. We know the Crops have been very good, and none has been lawfully exported or consumed by the Distillers : therefore the Plenty is absolute and certain, however it may be engrossed, and withheld from the Poor. The Miller has his Price in proportion to what he pays the Engrosser ; and the Baker is allowed the same fair Profit whether he give more or less for it at the Market. This cuts off all Apology for these Persons, as well as all Necessity for the Practice ; and should rouse the Compassionate Great against them.

THE Ingredients they add to Flour are in general Six ; 1. *Beanmeal*. 2. *Chalk*. 3. *Whiting*. 4. *Slak'd Lime*. 5. *Allum*, and 6. *Asbes of Bones*. All these may be discovered in the Bread now commonly sold ; and every Miller and Baker knows how to use them ;
but

but let them from this time forward fear a Discovery and Proof: this may be made easily; and the Laws are open and severe. There is beside these a seventh Ingredient us'd of more mischievous Quality than any of them, and not so easily discover'd: The Physician will know what I mean when I add that its Quality is Suffocation. To this I attribute the many sudden Deaths after Eating. I have separated this from Bread within these few Days, and may produce it before those who have Authority to punish; but shall be well excused from naming it, lest I teach those who, with sufficient Wickedness are deficient in Knowledge.

THE first of these Ingredients, *Bean-flour*, is perfectly innocent. Experiments have shewn it to afford a Nourishment superior even to that of Wheat: therefore if this were ever used alone there would be little Reason to complain. But there is a Toughness in Bean-flour; and its Colour is dusky: this Mixture therefore hurts the Colour and Consistence of the Flour, and to recover these, other less innocent Ingredients are added, Chalk to whiten it again, and Alum to give it that Consistence which is necessary to make it knead well in the Dough. The Publick therefore never receive Bread adulterated with Bean-flour, but

it is also rendered unhealthful by these other Ingredients,

Of all the Mixtures made with Flour for Bread, this of the Bean is the only one that can be pardoned; the rest tend manifestly to hurt the Constitution, and often occasion immediate Death.

CHALK is the most common Ingredient next to Bean-flour; and this is mix'd in great Quantity to give a Whiteness, and increase the Measure. If there be any who suppose Chalk, thus continually taken into the Body, may be harmless, they are greatly mistaken. I would not terrify Men into Imaginary Diseases by guarding against others; but 'tis well known that those who have frequently taken this Substance to cure the Heart-burn have suffered greatly.

As the Miller uses Chalk, the London Baker employs WHITING. This is no other than Chalk reduc'd to a fine Powder, and mixed up with Size; a very filthy Ingredient to enter into a human Stomach. This answers the same Purpose with Chalk, and has the same Effects.



THE next Ingredient to these, in the Course, is SLAK'D LIME; that is Lime which has been in Water, or has lain in a damp Air till it is fallen to Powder. No Ingredient is more used than this, and the only Purpose is to increase the Quantity.

ALUM is used by way of tempering the Dough, which would otherwise be untractable in making up, where there was a large Quantity of these Ingredients. It is a singular Property of this Salt that it reduces the Flour in that Respect to its own State again. These two last Ingredients are much more unhealthful than the others.

THE last we have to name is Bone Ashes: These are mix'd in a very large Quantity with much of the Bread that is commonly sold; and added to the Fraud and unwholesome Quality of such an Astringent, there is a Filthiness in this Article, which is abominably disgusting. The Bones us'd for the Occasion, are such as have been thrown from Servants Tables into the Dust-basket, and thence upon Dunghills, where they are gnawn by Dogs: after this they are boiled to get out the Fat, by People who make a Trade of it; and as they come from these Coppers, they

are burnt to the white Powder, which is often mixed in a very large Quantity with the Flour for Bread.

A L L these Ingredients answer the Mealman's dishonest Purpose, as they increase the Quantity, and they doubly answer the fraudulent Bakers, for they not only make the less Flour serve, but the burnt Bones in particular take in more Water than Flour would: Thus the Bread is rendered heavier, and the Baker boasts in his own Mind that he has got the better of the Magistrate's Care; not considering the Healths and Lives of his Customers.

I N Consequence of this, Bread, which has well been called the Staff of Life, becomes an Arrow in the Hand of Death; Men pine with Diseases from it, or perish instantly; and Infants are an universal Sacrifice.

T H E certain Effects of these Admixtures are Obstructions in the Viscera, whence arise that great and terrible Number of chronic Complaints difficultly remov'd when they proceed from Nature, but when the Effect of a continued Diet with unwholesome Food, altogether Unconquerable. The most immediate Effect is Costiveness, and this, were there no
other

other when it becomes habitual is found to be a very dangerous Malady.

THE Physician is astonished that his Medicines have not their usual Efficacy; or stands confounded to see the Complaint return, if conquered by them for the Time, as soon as they are omitted. He does not know that while he gives prudent and moderate Doses of his Laxatives, the Baker pours in Astringents in unmeasured Quantity at every Meal.

THIS was some Months ago, particularly in *August* and *September*, a kind of universal Distemper: now it prevails in some Places, but in others, on the contrary there appears a habitual Diarrhæa. The Doctors have in vain tax'd the Elements and Seasons; the Cause is nearer; and Bread, as in the other Instances, is the concealed Poison.

THERE was no Ingredient originally added to Flour for the making of Bread that had a purgative Quality; but the Bakers, more attentive to the Consequences of their unjust Practice, than those who felt the Effects of them, soon found that Chalk and Alum, burnt Bones and the rest, gave this astringent Quality to their Bread. I cannot favour these People so far as to think Humanity influenced them upon this

this Occasion, for that would have made them forbear the Practice: The Fear of being discovered by this Accident set them upon their Guard; and this gave Rise to a Sett of Men more dangerous to the Publick than themselves, call'd BREAD-DOCTORS.

THESE who had gained their Knowledge perhaps from the Sweepings of an Apothecary's Shop, or more probably behind the Counter of a retail Chymist, engaged themselves, to prevent all apparent ill Effects, by adding Medicines of another Quality. Hence JALAP has become an Ingredient in our daily Food; and as those indifferent Judges compute the Quantity, or as the careless Servant to the Baker mixes the Ingredients, our Bread becomes purgative or astringent; or approaches more or less to the middle Quality.

THAT these Ingredients are used in making Bread, is certain, for I have separated all of them from it: the Consequences are terrible; and it cannot be doubted but the Legislature will take the publick Cause into Consideration: the Offence deserves no Mercy, because it admits no Excuse of Accident; nor any Temptation, except the Highwayman's Cause the Plunder of the People. If Diseases alone were bought on, and not immediate Death, the
Sense

Sense of the Legislature is obvious as on other Occasions: Maiming is a Crime as capital as Murther. The Destruction of Infants from this Cause is terrible, their Food is principally Bread, and according to the Chance of mixing the Ingredients, we see them carried off by obstinate Costiveness or unconquerable Diarrhæas: the Attendants attributing those Convulsions to the Effect of the Disease which arise immediately from this Food.



The Method of discovering BAD BREAD of the several Kinds.

THAT those Ingredients we have named, are used in making the Bread now sold, is beyond all Dispute: not only their Effects on those who eat it shew them; but they may be seperated from the Loaf by easy Methods.

THE first Care in Families is to discover them; and to this End it may be proper to add to what has been said already of the general Difference between bad Bread and good to the Sight, Smell, and Taste, the following particular Marks of each Adulteration. These I have

have trac'd carefully, and they are sufficiently obvious : but the different Proportion in which they are us'd, and sometimes the Combination of many of them together, will, without Care, perplex the Judgment.

THE first Requisite is to have a Loaf of genuine Bread made at Home, as we shall direct hereafter. On Comparison, this will be found mellow, soft, sweet to the Taste, agreeable to the Smell, and brown on the Surface; more or less, according to the Degree of baking. The View of this, with the sophisticated common Bread will shew the Difference sooner than all Words.

WHERE such a Loaf is not at Hand, a French-roll will, in some Degree, answer the Purpose : for the Lighness requisite in this Kind of Bread does not admit the same Quantity of the pernicious Ingredients ; and tho' far from pure, it will show the common Bread in a very ill Light upon Comparison.

IF Bread be *browner* than it ought, *hard* and *crumbly*, there is *Bean-flour* mixed with the Wheat, and probably no other Ingredient. This is perhaps the most desirable Bread that can be had in a Time of general Adulteration.

If it be *White* and *Crumbly*, there is probably *Bean-flour*, *Whiting*, and *Alum*.

If it be *white* and *heavy*, there is Reason to suspect *Slak'd Lime*.

If it be *white*, *brittle*, and *close*, mouldering into *Crumbs* as it is touch'd, probably there is *Slak'd Lime* and *Bone-ashes* in it.

If it be *heavy* and *brittle*, *Whiting* is most likely to be the principal Ingredient. There is Bread so loaded with this, that it will sink like a Stone in Water.

If it be *heavy*, *rough*, and *solid*, there is Reason to suspect *Falap*; for it is the Quality of that Drug to prevent Lightness.

THESE are the obvious Marks of bad Bread, and, according to these, the Mistress of a Family, the Housekeeper, or common Servant, may judge of it: But this, tho' a rational Conjecture, is no more than a Conjecture. There are ways by which those who are accusom'd to the Analysis of mix'd Bodies may more certainly discover the Fraud.

FLOUR is a very simple Substance of few Properties, and those obvious and familiar: there's not one of these additional Substances which has the same, therefore any of them may be distinguished by a careful Examination of the Mass, nor is there any one capable of being so mixed with it but that it may be separated by an easy Process.

FLOUR softens in Water, and remains suspended in it, thickening the Substance into Paste, if it have been used raw, or into Pap if after Fermentation. This is a property of Flour which none of all the Mixtures, except Bean-meal, has. We have shewn how to discover that already, and if undiscovered no Harm can arise from it; but Whiting, Chalk, Lime, and Bone-ashes, may all be separated from Bread in which they have been mixed, by means of soaking it in Water with the Assistance of Heat. The Flour part will remain suspended in the Water, and these Powders will sink to the Bottom.

JALAP will be discovered by Spirit of Wine, for it will give a Tincture to that Menstruum; which, if not perceived by the Eye or Taste, will yet be known by turning Water milky. The Tincture of Jalap is resinous,

finous, and this is a certain Consequence. When the chalky Mixtures are in large Quantity, such Bread raises a Fermentation with Acids; and this alone is a most obvious Discovery, for there is no such Property in Flour.

ALUM is the most difficult to be seperated, because those who use it artfully dissolve it in the Water with which they knead the Dough. Pieces of Alum have come into Persons Mouths in eating the Bread, but this must have been the Adulteration of the Mealman, and he inexpert at his Business; but in whatever State or Condition it be in the Bread, it will dissolve in Water: therefore the same Methods of seperating the several Ingredients serve also for this. The Taste will often discover it in the Water, tho' it was not perceived in the Bread; and Chemistry tells us how always to know when there's the least Particle of it in a Fluid.

THE Intent of this Publication, being to instruct Families how to avoid the Danger of these Practices, it will be most proper, before we give the Method of making of Bread at home, to lay down the most certain Rules for the Discovery of those Frauds which occasion the Necessity.

THE Practice of mixing hurtful Ingredients with Flour, tho' very common, is not universal; and as there is some Difficulty and Trouble in making the Bread at home, the Family should not be put to it except when there is Cause.

THAT there is this Difference between some Bakers and others, (perhaps it may be just to say, between Bakers of some Parts of the Town and others) has appeared to me even in the most plain and full Proof; and this Justice is due to the honest, that they do not loose their Business with the guilty. I have procur'd for Tryal, Loaves from different Persons and different Places; and upon the Experiments, which are the true Test of the Honesty of their Makers, have found, that in this very general and reasonable Complaint, some Loaves have been free from all Mixture besides the proper Ingredients; a great many I have found, which, tho' very bad in Taste, Smell, Colour, and Consistence, have yet been free from Admixture, and have been made of bad and damaged Flour; the rest have afforded one or other of those pernicious Ingredients which have been already mentioned, and these are so easily separated from the Bread, and so plainly known, when obtained,

tained; that there can be no Question of the Fact.

Too much Encouragement cannot be given to those who, in a Time of general Depravation, maintain their Integrity, and give up the unreasonable and dishonest Profits of their Neighbours, rather than purchase them at the Price of entailing Diseases, or committing absolute Murther upon their Fellow-Subjects. Those who use bad Flour, tho' they make no wrong Additions to it, are highly blameable, for they buy it musty, and very fatal epidemical Diseases have arisen from the common Use of Bread made from unsound Corn. The Histories of Medicine abound with these: But the most unjustifiable of all, are those who use the Arts and Mixtures we have recited. They are already sensible that the Practice is known; and they will find, by the succeeding Tryals, that it can be proved upon them: They have Notice; and if they suffer, in consequence of such a Conviction, they will be unpitied.

THE regular Method to detect the Fraud is this: Cut off the Crust from a Loaf, and setting that aside, cut the Crumb into very thin Slices: Break these, but not very small, and put them into a Glass Cucurbit, with a
large

large Quantity of Water. Set this, without shaking, in a Sand Furnace, and let it stand, with a moderate Warmth, four and twenty Hours.

THE Crumb of the Bread will, in this Time, soften in all its Parts, and the Ingredients will separate from it. The Alum will dissolve in the Water, and may be extracted from it in the usual Way. The Jalap, if any have been us'd, will swim upon the Top in a coarse Film, and the other Ingredients, being heavy, will sink quite to the Bottom. These are the Principal; and the Pap being poured off, there will remain the Chalk, Bone-ashes, or whatsoever else was us'd, in a white Powder at the Bottom.

THIS is the best and most regular Method of finding the Deceit; but as Cucurbits and Sand Furnaces are not at hand in private Families, there is a more familiar Method.

LET the Crumb of a Loaf be sliced as before directed, and put with a great deal of Water into a large Earthen Pipkin. Let this be set over a very gentle Fire, and kept a long Time moderately hot, and the Pap being poured off, the Bone-ashes, or other Ingredients, will be found at the Bottom.

JUSTICE

Justice to the honest Bakers requires that we advise this to be done by every Family before they begin to bake for themselves; and it will prevent the Trouble where it is not necessary.

If these Ingredients are found at the Bottom, there is an absolute Necessity to find better Bread, or to make it; and the best Method is to try the Bread made at other Places first.

If none can be had but what is thus adulterated, 'tis worth any Trouble to make it at home, for there is no Treasure equal to Health. Those Families who buy the Flour, and make Bread of it themselves, will escape a great deal of the Mischief; but the Corn must be bought fine, and ground in the House, to secure the Safety of the Bread entirely.

SACKS of Whiting have been found in the Custody of Millers, and their Use is very evident when met with in such Hands. 'Tis by these People the Mixture is first made; and the Baker, who buys Flour thus adulterated, adds to the Sophistication, perhaps doubly. Therefore by buying the Flour one Part of the Mischief is set aside, but still it is
not

not safe : Nor is there so easy a way of trying Flour as Bread. Flour mix'd with Water boils into a Paste: The Whole becomes thick, and one uniform Mass; and by this Means the Bone-dust, or other heavy Ingredients, which would sink to the Bottom in the other Tryal, are kept suspended. There is, however, some good in the Experiment, and those who intend to make their Bread of bought Flour, shou'd always try it this way. Let the Flour and Water be well mixed; and let the Water be clear, and the Paste not too thick; this being boil'd will discover, in some Degree, the Adulteration of the Flour by its Appearance.

If the Corn have been good, and the Flour pure and unmixed, the Paste will be clear and transparent: If there be Bone-ashes, Whiting, or the like, in it, the Paste will look more or less white; and if the Flour have been unsound, tho' not mix'd with any other Ingredient, the Paste will be cloudy or muddy.

This is the Method of trying Flour in Families, and from such as makes a clear colourless and transparent Paste, Bread may be made with a very good Chance of Safety.

BUT the true way is to buy the Corn, and go through the whole Operations at home.

home. The Difficulty that attends this Practice is only in the grinding of the Wheat: we know how easily Oats, and the like, are ground by Hand; and this had led some to think Wheat might be managed as easily; but that is not the Case. The Corns of Wheat are hard and firm: they never succeed so well as between the heavy Stones of a Mill; and it has been pretended by some that they cou'd not be ground any way else: But this has been proved an Error. The Society at *Dublin*, for the Encouragement of Arts and Manufactures, some Time since, proposed a Premium for any one who should invent a Hand-Mill for grinding Wheat; and the Reward has been claimed, very much to the Advantage of the Publick: such an Instrument has been invented, and brought in several Places into Use.

We have a Society formed upon the same useful Plan; and, under the present Conduct, it promises great Utility: A Reward has been offered by this honourable Body for improving the *Dublin* Hand-Mill, or otherwise answering its Purposes to Families. There is a reasonable Expectation this will soon produce an Engine of so great Utility: But 'till that happens, as the Structure of the *Dublin* kind is probably understood among our Artists, it

may not be difficult to provide such as may answer the Purpose.

THIS is the Course I would recommend in the present Exigence : at more Leisure it may be done in a more perfect Manner. There is the greatest Reason for making Bread at home, in many Places, from the very Beginning of the Process ; and in this Manner there can be no Mistake, or doubt of Security.

THE Wheat is to be chosen with Care ; for there is a great deal in the Kingdom which is of a very poor Kind. It should be Corn of the last Year's Growth ; for there can come no good, and often there is a great deal of Damage got in keeping. Those who have no Consideration, but Profit, chuse such as is older, for the new yields more Bran ; but it is, in all Respects, better, and more wholesome. It should be in large Corns, of a bright Colour, hard, heavy, of a glossy Substance, and perfectly clean, or free from Dust. These are the Marks of fine, fresh, and sound Wheat. Such being chosen, and ground to Flour in the House, there is a Certainty of making the principal Food of Life wholesome. The Flour, being separated from the Bran, is to be made up into Dough
with

with Water, with the Addition of Yeast and Salt; and these Ingredients should be also carefully chosen.

THE best Water for the Purpose is the lightest and softest, but the most essential Article is that it be clear. The Flour will make best into Dough when it has been about ten Days ground. The Yeast must be in good Condition, and Basket Salt is preferable to any other.

WHEN the Dough is to be made let the Water be heated: the Degree of Heat must be proportioned to the Weather; in Summer it need be only just warm, but in Winter it should be hotter. A fourth Part of the Flour intended to be used, must be wetted, and mixed with the Yeast, and then covered up with more of the Flour dry. It is to lie thus six or seven Hours, and then the whole Quantity of Flower that is left must be made up; and this with the first Parcel all kneaded well together.

WHEN sufficiently kneaded, it must be put into the Trough; and three or four Holes must be made in it, by thrusting the Hands through it down to the Bottom. It must be then cover'd up; and it is to lie thus 'till the

Holes are filled up by the Swelling of it.

THE Oven should be heated with Billets; and where one is to be built for this Service, it should have thick Walls, and have the Roof low, and the Mouth small.

WHEN it is hot enough, take out the Remainder of the Fuel, and wrapping a Piece of coarse Cloth about the Peel, make the Bottom thoroughly clean. Then shut up the Oven for a little time; and after this, set in Dough form'd into Loaves of the different Sizes; lay up the largest towards the farthest End, and near the Sides; and the smaller toward the Mouth, and in the Middle.

WHEN all is in, the Oven must be shut up, and wet Cloaths hung before the Mouth of it; and thus it is to continue 'till the Bread is enough. When it is supposed to be done, the Oven is to be open'd, and one of the Loaves taken out to try: If it be not done, the Oven may be clos'd up again.

I HAVE been particular in these Circumstances, because many may, on this Occasion, take up the Practice, who are unaccustomed to it, and at a Loss for Information. I flatter myself

flatter myself the Directions are right: It is a kind of Knowledge altogether out of my way; but they are obtained from a Family where Bread is constantly made. Probably they differ from the Method used by Bakers, for the Bread in Families differs always from theirs; it is not so light, but of a better Taste, and more wholesome.

Thus easily is Bread bak'd in Families; and there is sufficient Reason now for making the Practice universal. Those who purchase the Flour should endeavour to buy it of reputable Dealers, and try it by the Method of Paste, which tho' it cannot discover all the Frauds which are practis'd in this Part, will give the Purchaser sufficient Caution to reject the worst, and seek farther.

If the Abuses of those concerned in Corn should be permitted to encrease daily without Restraint, these Cautions would indeed be useless, and Hand-Mills made to no Purpose; for the Corn cou'd not be bought otherwise than in Flour. It is a Traffick instituted long ago, tho' under better Bounds, but now carried to a Height which the *British* Legislature will not overlook. The Mealman has the Art of mixing cheap Ingredients with his Flour, to increase the Quantity; and if he
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has Money or Credit to purchase the Corn for this in Quantities, he will employ that Money, or that Credit, to get all he can into his Hands; for the Poor must have Bread, and the Return is certain. If he give the Farmer an extravagant Price, he can charge in Proportion to the Purchaser; and we know, from long Experience, that a small Advance upon the original Charge in any Thing becomes doubled by that Time it comes into the Hands of the Consumer.

THIS Traffick is now carried on between the Mealmen and Farmers, in several Parts of the Kingdom; and in an Age like this, when nothing is regarded beside Gain, it will doubtless be soon universal, unless the Justice of the Government interfere, and Punishments equal to the Crime are appointed. Beside the Destruction of the Inhabitants of a somewhat higher Rank, by Diseases, Misery, or a sudden Death, here is Famine entail'd upon the Poor; on whom, tho' the Affluent teach themselves too much to neglect them, they ought to know, and if they strain the Bursting Cord too far, they soon will know they really depend.

THE Price of Labour is not raised; nor have the Poor fewer Children than heretofore;

fore : Indeed the Number may be soon reduced ; for unless there be Food for them they must perish : And how is it possible that the industrious Day-Labourer, who cou'd but just feed his Family when a natural and reasonable Price was set on Bread, shou'd support them now ? his Wages not being enlarged, and the Price of Food double.

THE Legislature, in Times past, have made Provision against these Enormities : but Men grow now more cunning, as well as more daring in the abuse ; and the Statutes made in Times of more innocent Manners will not bind them. The shameful Licentiousness of the People is such, that we know the first Thing, when the Legislature have made a Law, is the considering how to evade it : Of this those from whom we are to implore Redress, under the Oppression, are well apprized ; and the very Being of the People will depend upon their Care, that no such Evasion can have Place here.

ENGLAND is at this Time threaten'd by a powerful Enemy. We know the Riches of a King are the Number of his People ; and it is as evident this is also the Strength of a Kingdom. Without wandering from our Point to consider what has been done to prevent, and what may be done to promote the
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Encrease of the People for a succeeding Generation, let us endeavour to combat the Evil that is at our Doors; and, for our own sakes, preserve the present.

THE Rich, who at all Times feed upon the Industry of the Poor, may probably now depend upon their Arms, for the Defence of those Possessions which place them at such a Distance above them: The Militia-Bill shews the Sense of the Legislature on this Head; and none can forget that however this Act may have been misrepresented in the Intent, and opposed in the Execution, it was demanded by the free and full Voice of the People.

It is cruel to withhold from the Labourer that Bread which his own Flail procures for us; and it is impolitic: If we regard only his own Drudgery, he must be fed to support him; and if we can be made sensible of that plain Truth, that when he grows feeble, we must in the same Manner depend upon the Labour of his Children, we shall see it is our Interest (if Charity can lay no hold upon us) not to starve them.

THIS appears upon the plain Face of the Account, considering the lower People as
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only as Labourers, and their Offspring but as a Race of growing Slaves; but when we consider them in the additional Light of Soldiers, the Reasoning grows more weighty against Oppression. If they are to arm for the Defence of their Country, there can be no good expected in that Capacity, unless that Country be dear to them; and how can it be dear, when they feel nothing but Oppression?

A MILITIA are a kind of Troops different in their very Constitution from standing Forces: They fight for their Country, not for the Sake of that Pay which is their Bread: They go out under their natural Patrons, the Landlords of the Grounds they till; and every Thing is to be expected from their Courage, disciplined, as they now will be, when they fight for a Country which is dear to them, and under Masters who protect and feed them.

THIS is the rational Constitution of a Militia, and this the Source of that Dependence a Government may place in them; but this Service depends upon Protection, and Encouragement given before. It appears that we may want their Service, and it is fit we should deserve it. As to their Landlords they scarce know them now, for the Metropolis has swallowed up all the considerable Families of



the Kingdom. The Farmers who give them Employment are the only Masters they know; and these are their Oppressors: They refuse to sell to them the Corn produced from their own Labour at any Price; and give double Power of Extortion into the Hands of Mealmen and Bakers.

THE Poor therefore can have no Respect or Regard for their Superiors: and unless they be relieved by the Legislature, it is to be feared they will soon have little for their Country.

THE Emissaries of our cunning Enemy are every where about us, we receive them into Families, and employ them in our Manufactures, and they are labouring to estrange and alienate the Minds of our meaner People, continually, from that Love of their Country on which her very Existence as a State must depend. They whisper to the poor on all Occasions that the Peasants of *France* have happier Lives than the labouring Rank in *England*, and tho' this be not true, an ignorant and exasperated Populace may believe it.

ALL Regard for their Masters is lost in the Neglect shewn them by the Superior, and in the Oppression they feel from the under Rank, and from their Sufferings; and under these Misrepresentations

presentations (for they see not Wooden Shoes nor Gallies) they will loose all love for their Country. Such Men do not fight on the Principle of Mercenaries, nor understand it a Duty to obey their Officers, nor have they any Sense of Honour: The Principle on which they could be expected to fight is taken away; and what can be hoped from them!

To continue the Kingdom in Peace and Security, it is as requisite to break these unlawful and unmerciful Combinations among those who deal in Corn, as to preserve it in Health, it is to regulate the making that Corn into Bread: In both Cases the Body of the People are oppress'd, and not the Government is profited; but a few mercenary and useless Members feed on the Advantage.

THE universal Principle that rules amongst Mankind is the Desire of Gain, and 'tis only particular in this Case, because at the same Time that it plunders the Purse, it destroys the Health. 'Tis miserable for the Poor, because it falls on them; and the more oppressive because it is inevitable. Many Things, the Price of which is of late rais'd, are Articles of Luxury, at least of Pleasure rather than Necessity; and there is less Hardship in Men's being imposed on in the Price of what
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they need not purchase unless they please. The Mischief also is less universal ; but in the present Instance the whole People suffer, and the more useful most. There is no chusing whether or not we will buy Bread ; and as the shameful Trade is managed, the Poor, at the same Time they are obliged to pay twice the natural Price, are defrauded in the Quality of the Provision, and feed on most unwholesome Drugs and Mixtures.

THE Price of Corn alone must ruin them, and famish their Wives and Children ; for the full Pay of their Labour, in many Cases, cannot purchase it. What then remains for Cloathing ; for they cannot be naked ? for the Landlord ; for they must have their House ? and for the King ; who must have his Dues and Rights ? The Case is obvious ; and the Mischiefs that threaten from it are not less plain ; unless prevented by the Legislature.

We expect more than ordinary Service from the common People, for besides Servants they are to be our Soldiers, and the Government has a Right to expect it from them ; but it comes at an ill Time, when they complain of Oppression.

IF any Purpose of Government were answered by their Sufferings, mine should be the last Voice to complain: for I know that often private Ills are publick Benefits, and Things disagreeable in themselves as much to those who impose, as those who feel the Weight of them done, must be: But in this Case the Publick are not Gainers; the most useful Part of the People are destroy'd for the Service of a few merciless Persons raised a little above their own Rank; and unworthy of that Distinction. If the Necessities of Government had required a Tax on Bread, the Humanity of Mankind would have lamented the Occasion; yet that could have been but little: a third Part of the Advance in Price which is now impos'd, would have been thought a great Demand, and it would have raised no small Supply for the Publick Service. This may give those, who have not considered the Subject, an Idea of what the Gains are, which an arbitrary and inhuman Set of Ingrossers drain from the Subjects in general; and, what's most grievous, from the Poor, singly considered equally with the Rich.

THE Farmer pays no more Rent for his Land, Manures come at the same Expence, and while he doubles the Price of Food, he
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still demands and expects Labour to be as cheap as ever : but he deceives himself. However the Oppression may favour him at present, it will return doubly against his Interests in a little Time ; it cannot be otherwise ; nor can he complain ; or if he should, he must complain unpitied.

It is in vain we boast in *England* a Sovereign, who, while the rest of *Europe* is at War, supports us in Peace and Tranquility ; in vain we return with devout Hearts our Thanks to Heaven for the most favourable Seasons, and plentiful Harvests : Our King, nor our God, without a Miracle, can preserve us from Oppression, Misery, Distress, and Famine, while our Fellow-Subjects are the Tormentors.

We read, with Horror, the Devastation of Armies in miserable *Germany* ; of Harvests cut by Soldiers which the peaceful Farmer sow'd, and of his House plunder'd, and perhaps his Family butcher'd before his Eyes : We should return Thanks to Providence, and to our King, under the Mercy of God, the Giver of our Blessings ; but, in Defiance of both, the meanest of our Fellow-Subjects, the Miller and the Baker, pull down the Hands that were lifted up for Praise ; and in the

the place of natural Plenty present the ghastly Figure of an artificial Famine.

THIS is our Situation, and it encreases in Horror : far from the Prospect of Relief, new Combinations fill us with new Terror ; and the Contempt of all Laws hitherto established, calls aloud for new ones, and those more severe.

LET not any one suppose me cruel for this Representation. The Crime is greater than the half of those which our Laws punish capitally : and if there need further Aggravations in the representing it now, it is premeditated, and voluntary. Rashness, or Drink, or present, and extream Necessity, may send a Man to the Road ; and that Fury or Intoxication over, or the pressing Exigence relieved, he may return to his Employment. But, in the present Case, the Crime is itself the regular Employment ; it is continued without Interruption ; and as all bad Things grow worse, by long Practise, there is no Doubt but this will yearly receive new Additions. The Price will be rais'd, and the Flour debas'd in Proportion, 'till the Baker shall sell us Bread that has no Corn in it ; as a Vintner once (charged with selling a prohibited Wine) proved there was no Wine of any Kind in the Bottle.

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OTHER Frauds affect the Purse alone; the miserable Attendant upon this is the latent Destruction which preys upon the Health: Infancy perishes unnoticed; and possibly before those of mature Years shall have alarmed the Legislature, the Kingdom may be irreparably thin'd of the succeeding Generation of Subjects.

THIS is the State of the Case: And this the Author of these Observations is earnest to lay before those who have the Redress in their Hands: The known and wilful Adulteration of Bread certainly deserves heavy Punishment; but the Source of this is the Abuse of those who engross and raise the Price of Corn. From this the Mealmen are tempted more and more to adulterate the Flour; and the Baker acts but a third part, tho' perhaps the greatest and most inexcusable of all, in this general Abuse and Oppression. The Contempt of Law, and the Neglect of Conscience, the turbulent Spirit of the People, and the Decay of Piety, are the natural and miserable Consequences of one another: What may follow from the present Temper of the Populace is easily foreseen; but, happily for us, being foreseen, it is also easily prevented. The common People look upon the Laws of their Country

Country as their Protection, and therefore they submit themselves to Government: but when they loose the Support, they will no more reverence the Authority of their Rulers. Protection and Obedience must be mutual; and what Regard will they think they owe to those who do not defend them against the meanest of all Tyrants, their Fellows.

THIS is the Spirit of all Laws, and the Vulgar feel, as strongly as the most accurate Writers can describe it. We see this, and we have Reason to be alarmed at the Consequences. While those in the Rank next above them submitted to the Laws, the Vulgar bore their Misfortunes patiently; for with the Spirit of *Britons* they had also that Integrity, which constituted once the greatest Part of their national Character: but when they saw their Misery owing not to the Hand of Heaven, but the oppressive Measures of their Fellows, they lost all Temper: When they found a few bad Men, break thro' the Laws made for their Preservation, and export Corn before their Faces (while Exportation was prohibited) they paid no more Regard to the Laws of their Country than these their Oppressors did; they gathered in tumultuous Numbers, and with an illegal Hand stopped these illegal Practices.

THIS was the beginning of Riots on the present Occasion: but the Fury of a Mob is the Rage of a Monster, full of the Power of Mischief; and without Moderation, Knowledge, or Reason. We see, that not content with resenting the Injuries they have suffered in particular Instances, their Fury once raised has been let loose too generally; and often against the Innocent. They who assembled to demand Corn for their Money from those of whom they had a Right to purchase it, not contenting themselves with wasting and destroying what they were refused for Money, attacked the Property of those whom they could only suspect of an Intent to wrong them; from thence the next Step was to the Granaries and Store-houses of those who had no Fault but possessing that which it was their proper Business to possess; and finally to any whom they could plunder.

THRO' these Steps we have seen the Fury of an offended Populace rise from Resentment against those who had injured them to the plundering whoever was richer than themselves. Money has been demanded from Families, not under a Pretence of their having done any Thing amiss, but because the Mob had Power to do Mischief, and must be prevented by Composition.

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THESE are the People we are about to arm, to teach the Use of Weapons, and to reduce to Discipline: 'tis evident, from the present Danger, what succeeding Time may produce under more Provocation, and with greater Power. This is not aim'd to terrify such as may be expos'd to the Insults of an armed and disciplin'd Mob, but to give an humble and modest Hint to those who are arming them, that themselves have also the Power of taking away their Provocations. It all returns to this first Proposition, that the Authority of Government depends upon the Protection it gives the Subject. Where that Protection is absolute, the Strength of the People is the Strength also of the Government, but where it is withheld, their Power is the Danger of the State. On this is built the Necessity of the Legislature's interfering when bad Men oppress the Multitude; and there never can be a more urgent Occasion than the present. We are happy in a Sovereign, who has, on all Occasions, shewn a paternal Care and Affection for his People; and we have an Administration which if the People themselves had the Choice, would have been their own Appointment: Never were Subjects farther from Oppression, from their Rulers; and it is from this they feel, with double Weight, the Insults they receive from one another.

THE Laws now in being against Engrossing, or Exporting Corn, and that happiest and best contriv'd of all against the converting it by Distillation into a Poison, are plainly not sufficient for the Purpose: The cunning of some has found Means of evading them, and the Boldness of others holds them, as it were, in open Defiance. The Quantity of Corn is encreas'd by Importation, but the Poor find no Relief: The Price of Bread rises in Proportion, not to the Scarcity, but to the Abundance of Wheat; and while whole Granaries lie unemploy'd, they perish with Hunger. As we have had a plentiful Crop at Home, and we have brought in a great Deal from Abroad, as the carrying any out of the Kingdom is forbidden, and that pernicious Use of it in the Distillery is no longer permitted, there is Reason to suppose the Markets would be full, and the Price low; but the very contrary appears. There are in a manner no Markets at all, for the Corn is bought up privately within Doors, and by Loads, not in small Quantities in open Day-light: 'tis sold by Sample, and the Mealman is the Purchaser. Of him the Poor are to buy it at an advanced Price, or starve; and when they have paid perhaps double the just Value, are defrauded of the Quantity by
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useless Additions, or made Sick, and incapable of Labour by pernicious Mixtures.

THE Charters of Markets are thus rendered ineffectual: there is no Market-price; and the third-hand Oppresser, the Baker, can be laid under no Rule. In these Circumstances, the People of *Britain* who have been used to boast their Liberty and their Government, as the Envy and the Model of the World, pine in the midst of Plenty, are Slaves, miserable and oppressed Slaves, with all their Rights untouched by Power; and groaning beneath the want of that Protection which they had been used to find from Government, and which the Government of their Country is so excellently instituted to give, are in the Condition of those *Italian Slaves, who, in the loaded Vineyard, die for Thirst.*

THIS is a Subject worthy the Attention of a *British* Parliament. This, if more urgent Thoughts should postpone in their Breast, from whom it might immediately be wish'd, would be a Care worthy the Character, and suited to the Soul of that good great Man, Father of the distress'd, and Friend of Human Kind, the Lord NORTHUMBERLAND; who, tho' remov'd from the Distresses of inferior Ranks, feels them as strongly as if himself

self-suffered them; and to whose Patronage of that Charity, which he has made extensive for the Sick, nothing could be so worthy to succeed as this friendly Care of those who are yet well.

In him, or in some other, if there be any other such, we may hope with Confidence that however foreign Interests may employ, and may divide the Minds of those who otherwise would make this their first and most immediate Care, the poor will find an Advocate, and the Lives of the most essential Part of the Community will be preserved.

F I N I S.

